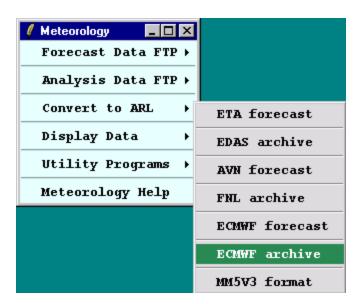# GRIB Data Conversions

Many meteorological centers archive their model output fields in the **GRI**dded **B**inary format (GRIB). The GRIB standard defines the contents of a data record. A GRIB record consists of six sections: 0) An indicator section which always starts with the four ASCII characters "GRIB", 1) a product definition section, 2) a grid description section, 3) the bit map section, 4) the binary data section, 5) and the record terminator which always consists of the ASCII characters "7777". More detailed information about GRIB and the new GRIB2 standard can be found at the WMO. GRIB does not define the record contents of file. Each center may package their data differently. Therefore rather than designing HYSPLIT to work directly with GRIB files, an intermediate program is required to convert GRIB data to the HYSPLIT compatible format.

Converting from GRIB to HYSPLIT

The HYSPLIT GUI contains FTP links to HYSPLIT compatible archives. Some GRIB conversion programs (for NOAA and ECMWF data) are integrated into the GUI. Programs for other meteorological formats (e.g. RAMS) are available from the HYSPLIT data web page. The "Convert to ARL" menu tab is designed to convert data already on the local computer. Conversions may are also performed in conjunction with the analysis and forecast data FTP menus. These menus will be discussed in more detail in subsequent sections. In the example on the next page, reanalysis data from the ECMWF public archive will be converted to the HYSPLIT compatible format.